BERCOVIER et al.

Application No. 10/589,866

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the

application:

Listing of Claims:

1-65. (Canceled)

66. (Currently Amended) A molecule[[,]] comprising:

an isolated peptide represented by an isolated comprising an amino acid

sequence comprising SEQ ID NO: 1, the peptide optionally being capable of binding to

mannosylated lipoarabinomannan (ManLAM) binding antibodies and optionally being

capable of eliciting, upon immunization in a subject, production of ManLAM-binding

antibodies.

67. (Currently Amended) The molecule of claim 66, wherein the isolated peptide is

capable of binding to mannosylated lipoarabinomannan said (ManLAM) binding

antibodies are anti-ManLAM antibodies.

68. (Currently Amended) The molecule of claim 66, wherein the said ManLAM-binding

antibodies are monoclonal antibodies (mAbs) or anti ManLaM antibodies.

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69. (Currently Amended) The molecule of claim 68, wherein the said mAbs are CS40

antibodies.

70. (Previously Presented) The molecule of claim 66, which does not bind to antibodies

directed against lipoglycans selected from the group consisting of non-mannolsylated

and low mannosylated lipoglycans.

71. (Previously Presented) The molecule of claim 70, which does not bind to CS35 anti-

LAM mAb, 735 anti-ploy $\alpha(2\rightarrow 8)$ N-acetyl neuraminic acid mAb, and 2H1 anti-

glucuronoxylomannan mAb.

72-77. (Cancelled)

78. (Withdrawn and Currently Amended) A method for diagnosing a mycobacterial

infection in a subject, the method comprising:

(a) contacting a sample from the subject with a molecule, the molecule

comprising an isolated peptide comprising an represented by an isolated amino acid

sequence comprising SEQ ID NO:1, the peptide optionally being capable of binding to

ManLAM-binding antibodies, and optionally being capable of eliciting, upon

immunization in a subject, production of ManLAM binding antibodies; and

(b) determining formation of a complex comprising said the molecule and

ManLAM-binding antibodies, if present in the sample,

wherein a positive determination indicates mycobacterial infection in the subject.

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79. (Withdrawn and Currently Amended) A method for determining whether a subject

has an active mycobacterial infection, the method comprising:

(a) contacting a sample from the said subject with a molecule, the molecule

comprising an isolated peptide comprising an represented by an isolated amino acid

sequence comprising SEQ ID NO: 1, the peptide optionally being capable of binding to

ManLAM-binding antibodies, and optionally being capable of eliciting, upon

immunization in a subject, production of ManLAM binding antibodies;

(b) determining level of complexes comprising the said molecule and ManLAM

binding antibodies; and

(c) comparing the said level to a standard,

wherein a level higher than the standard indicates active myobacterial infection in

the subject.

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80. (Withdrawn and Currently Amended) A method for determining treatment efficacy in

a subject comprising a mycobacterial infection, the method comprising:

(a) contacting samples from the said subject, from at least two discrete time

points, with a molecule comprising a peptide comprising an represented by an isolated

amino acid sequence comprising SEQ ID NO: 1, the peptide optionally being capable of

binding to ManLAM-binding antibodies, and optionally being capable of eliciting, upon

immunization in a subject, production of ManLAM binding antibodies; and

(b) determining level of complexes comprising the said molecule and ManLAM -

binding antibodies in the said samples,

wherein a difference in the level between the two time points is indicative of the

effectiveness of the treatment.

81. (Currently Amended) A kit for diagnosing mycobacterial infection in a subject, the

kit comprising:

an-amino-acid a molecule comprising an isolated peptide comprising an

represented by an isolated amino acid sequence comprising SEQ ID NO:1, the peptide

optionally being capable of binding to ManLAM-binding antibodies and optionally being

capable of eliciting, upon immunization of a subject, production of ManLAM binding

antibodies.

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82. (Currently Amended) A vaccine[[,]] comprising:

an immunologically acceptable carrier; and

a molecule comprising an isolated peptide comprising an represented by an

isolated amino acid sequence comprising SEQ ID NO:1, the peptide optionally being

capable of binding to ManLAM-binding antibodies and optionally being capable of

eliciting, upon immunization of a subject, production of ManLAM binding antibodies.

83. (Currently Amended) The vaccine of claim 82, wherein the isolated peptide is

capable of binding to said ManLAM binding antibodies are anti-ManLAM antibodies.

84. (Currently Amended) The vaccine of claim 82 [[83]], wherein the molecule does not

bind to antibodies directed against lipoglycans selected from non-mannolsylated and

low mannosylated lipoglycans.

85. (Previously Presented) The vaccine of claim 84, which molecule does not bind to

CS35 anti-LAM mAb, 735 anti-ploy $\alpha(2\rightarrow 8)$ N-acetyl neuraminic acid mAb, and 2H1

anti-glucuronoxylomannan mAb.

86-91. (Cancelled)

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92. (Withdrawn and Currently Amended) A method of immunization of a subject against

mycobacterial infection, the method comprising:

providing the said subject with an immunizing amount of a-molecule comprising

an isolated peptide comprising an represented by an isolated amino acid sequence

comprising SEQ ID NO: 1, the peptide optionally being capable of binding to ManLAM-

binding antibodies and optionally being capable of eliciting, upon immunization of a

subject, production of ManLAM binding antibodies.

93. (Withdrawn) The method of claim 92, wherein the amino acid molecule does not

bind to antibodies directed against lipoglycans selected from non-mannolsylated and

low mannosylated lipoglycans.

94. (Withdrawn) The method of claim 93, wherein the molecule does not bind to CS35

anti-LAM mAb, 735 anti-ploy $\alpha(2\rightarrow 8)$ N-acetyl neuraminic acid mAb, and 2H1 anti-

glucuronoxylomannan mAb.

95-100. (Cancelled)